

REMARKS

The Examiner's Office Action of December 1, 2004 has been received and its contents reviewed. Applicants would like to thank the Examiner for the consideration given to the above-identified application.

By this Amendment, claims 6, 12 and 17 have been amended, claims 66-75 have been previously canceled, and claims 1-5, 23-27 and 45-65 have been withdrawn from consideration. Accordingly, claims 6-22 and 28-44 are pending for consideration, of which claims 6, 12, 17, 28, 34 and 39 are independent. By the actions above and the remarks below, Applicants respectfully request reconsideration and allowance of all the pending claims.

Referring now to the detailed Office Action, claims 6-22 and 28-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,821,562 to Makita et al. (hereinafter Makita), in view of U.S. Patent No. 6,083,324 to Henley et al. (hereinafter Henley). Specifically, in rejecting the claims, the Office Action refers to FIG. 8C and column 19, lines 24-38 of Makita when discussing the claimed step of forming an impurity region. This portion of the Makita patent describes the crystal growth end 307. Moreover, the Office Action in numbered paragraph 7, admits that Makita does not disclose that a noble gas is added in the crystal growth end 307. The Henley patent is relied upon for allegedly curing this deficiency. The Henley patent is directed to a gettering technique in a silicon-on-insulator wafer. The Office Action asserts that it would have been obvious to one of ordinary skill in the art to "substitute" Henley's forming of an impurity region to which a noble gas element is added in the crystalline semiconductor film in the method of Makita. Applicants respectfully traverse this rejection.


Applicants note that independent claims 6, 12 and 17 have been amended to recite "forming an impurity region to which a noble gas element is selectively added in the crystalline semiconductor film." Additionally, independent claims 28, 34 and 39 each recite "forming an impurity region to which an ion of a noble gas element accelerated by an electric field is added in the crystalline semiconductor film through the opening." Neither Makita nor Henley teach or suggest each and every feature of the presently claimed invention. Moreover, Applicants respectfully submit that there is no motivation to substitute any steps performed by Henley into the method of Makita, as alleged in the Office Action to achieve the presently claimed invention.

Initially, Applicants note that the Makita patent is not directed to a gettering technique and that there is no suggestion in Makita to add or to selectively add (as now set forth in independent claims 6, 12 and 17) any substance into a crystal region 307 for any reason. Also, Applicants submit that the Henley patent is not directed to the specific crystallization technique taught by Makita. As such, there is no suggestion or motivation, absent impermissible hindsight, to combine these references to achieve the claimed invention. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

In view of the amendments and arguments set forth above, Applicants respectfully request reconsideration and withdrawal of all the pending rejections.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise which could be eliminated through discussions with Applicants' representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Respectfully submitted,

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